THE INTERNATIONAL ECONOMY

Fourth Edition

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ORIGINS AND ISSUES

The study of international trade and finance is among the oldest specialties in economics. It was conceived in the sixteenth century, a child of Europe's passion for Spanish gold, and grew to maturity in the turbulent years that witnessed the emergence of modern nation states. It attracted the leading economists of the eighteenth and nineteenth centuries, including David Hume, Adam Smith, David Ricardo, and John Stuart Mill, whose work supplied a legacy of insights and concepts that continue to guide us today. In fact, their work on international economic problems produced important analytical tools used by modern economics. An early version of the quantity theory of money was developed by David Hume to show how foreign trade affects the level of domestic prices. The first full formulation of the law of supply and demand was developed by John Stuart Mill to explain how prices are determined in international markets. International problems have been studied by many recipients of the Nobel Prize in economics, including Paul Samuelson, Wassily Leontief, Bertil Ohlin, and James Meade.

International economics continues to flourish today because the analytical and policy issues that brought it into being still demand attention.

By engaging in international trade, each national economy can use its resources most efficiently, concentrating on the activities it is best suited to pursue, and can reap significant economies of scale. In consequence, trade raises real income in each country. These gains are similar to those we reap as individuals by specializing in a single occupation rather than meeting all our material needs by producing our own food, clothing, and so on. Trade is beneficial in other ways. Improvements in technology developed in one country are shared automatically with other countries. They are shared directly when they are embodied in new capital equipment sold on world markets. They are shared indirectly when they raise efficiency or product quality in the export industries of the country where they originate.

By participating in international capital markets, countries can grow faster. By borrowing on those markets, they can supplement domestic savings and thus raise capital formation.

The United States borrowed abroad in the nineteenth century, and many developing countries do so now. By lending on those markets, countries can use their savings more productively. International trade in claims and liabilities raises the efficiency with which an economy can allocate resources across time, just as trade in goods and services raises the efficiency with which it can allocate resources at each point in time.

International trade and finance pose hard problems as well as opportunities. They pose economic problems by affecting the internal behavior of each national economy. They pose political problems by affecting relations among governments.

By affecting the allocation of domestic resources, trade affects the distribution of domestic income. A change in the level or composition of a country's trade can require a reallocation of resources and thus redistribute incomes. The astonishing growth of the Japanese economy in the 1960s and 1970s forced the older industrial economies of the United States and Western Europe to make adaptations affecting major industries and whole regions. The subsequent growth of manufacturing in Korea, Taiwan, and other developing countries required additional adaptations, not only in the older industrial countries but in Japan as well.

Events in international markets can affect the level of domestic employment, the growth of output, and the inflation rate. The unprecedented increase in the world price of oil in the 1970s was an important cause of *stagflation* in the oil-importing countries—the painful combination of high unemployment, slow growth, and rapid inflation. Changes in the prices of other raw materials affect the export earnings of many developing countries, which determine their ability to import machinery and other capital goods. Therefore, they influence the pace of development.

Commercial and financial arrangements among countries affect the functioning of domestic policies. The effectiveness of monetary policy, for example, is influenced strongly by exchange-rate arrangements. A government that tries to peg its exchange rate—to fix the price of its currency in terms of another currency—cannot pursue an independent monetary policy. Changes in its money supply will spill out through its balance of payments with the outside world, and this will happen rapidly when, as now, national financial markets are tightly linked. A government that allows its exchange rate to float—to respond to shifts in supply and demand in the foreign-exchange market—can pursue an independent monetary policy, but will discover that changes in its monetary policy affect its exchange rate in ways that magnify and modify the domestic impact of those policy changes.

THE GROWTH OF ECONOMIC INTERDEPENDENCE

Trade and other international transactions have been growing rapidly. Here are some broad indicators:

- In 1980, all countries' exports together totaled $1.9 trillion; ten years later, they totaled $3.4 trillion; and in 1997, they reached $5.5 trillion, a cumulative increase of 190 percent since 1980.
- In 1980, the world's major banks had $1.8 trillion of claims on residents of foreign countries; ten years later, their claims totaled $6.7 trillion; and in 1997, they reached $9.0 trillion, a cumulative increase of 400 percent.
- In 1980, foreigners held $65 billion of U.S. corporate stocks; ten years later, they held more than $230 billion; and in 1997, their holdings reached $860 billion, a cumulative increase of 1220 percent.

The rapid growth of these international transactions has been reflected in the volume of foreign-exchange trading. In 1989, daily trading on the world's major currency markets averaged about $950 billion per day. In 1998, it averaged $1.5 trillion per day.

International trade and capital flows forge strong links between national economies. An increase in one country's income will raise its demand for imports, and the imports of one country are the exports of another. Therefore, an increase in one country's income will raise other countries' exports and thus raise their incomes. An increase in one country's interest rates will attract capital flows from other countries and thus tend to raise other countries' interest rates.

THE DIMENSIONS OF POLICY INTERDEPENDENCE

Interdependence between national economies leads to interdependence between national policies. When a government cuts taxes to stimulate domestic demand, it stimulates demand in other countries too. By raising its imports, it raises their exports. Other governments must therefore modify their policies in order to stabilize their own economies.

The money flows that take place under pegged exchange rates offer another example. An increase in one country's money supply that spills out through its balance of payments increases other countries' money supplies. They must then modify their monetary policies to combat the "imported" inflationary pressure.

These money flows do not take place under floating exchange rates, but policy interdependence crops up in another form. Exchange rates are *shared* variables. The price of the euro in terms of the U.S. dollar defines the price of the dollar in terms of the euro. When the dollar price of the euro rises, the euro price of the dollar falls.

The domestic effects of an exchange-rate change are less obvious in a large economy like that of the United States than in smaller, more open economies. Until recently, indeed, exchange-rate changes went almost unnoticed in the United States. When asked to rank three key prices in order of their influence on the domestic economy, an American would have put the wage rate first, the price of oil next, and the exchange rate last. A German would probably have put the exchange rate first, the price of oil next, and the wage rate last. The German might have pointed out, moreover, that the price of oil in Germany depends on the exchange rate. As world oil prices are quoted in dollars, the price expressed in euros in determined in part by the price of the dollar in terms of the euro.

The trade of the United States, however, has grown faster than its gross domestic product (GDP), raising the ratio of trade to output, as shown in Table 1-1. The ratio remained lower than those of many other countries, but the U.S. economy became more open in this and other ways. Furthermore, monetary union in Europe and the introduction of the euro increased the resemblance between Europe and the United States. Here is a measure of openness for the European Union (EU), Japan, and the United States in 1997 (exports as a percentage of GDP):

European Union	10.3
Japan	10.0
United States	8.5

Table 1-1. Trends in Economic Openness in the Seven Summit Countries: Averages of Exports and Imports of Goods and Services as Percentages of Gross Domestic Product

Country	1970	1980	1990	1997
Canada	21.3	27.4	25.0	38.8
France	15.5	22.1	22.6	24.7
Germany	21.6	28.5	32.9	24.9
Italy	15.2	22.0	19.3	23.1
Japan	10.2	14.1	10.4	10.5
United Kingdom	21.9	25.9	25.6	28.6
United States	5.6	10.6	10.7	12.5

Source: International Monetary Fund, *International Financial Statistics*; figures for Germany exclude East Germany before 1997.

These numbers are lower than those in Table 1-1 because they pertain to trade in goods, not goods and services.[1]

The greater openness of the U.S. economy has reduced the policy independence of the United States. Because it allows its exchange rate to float, it can conduct an independent monetary policy. But it cannot exercise its independence without allowing for the impact of exchange-rate changes on its own economy, those of other countries, and the policies of other countries. The character of policy interdependence is influenced by exchange-rate arrangements, but the fact of interdependence is inescapable.

No government can be totally indifferent to the economic policies of other governments, and increased openness has raised sensitivities. Governments pay close attention to each others' policies. They watch each other's agricultural policies, which can affect global food prices and supplies. They watch each other's energy policies, which can affect the world price of oil. They watch each others' subsidies to domestic industries, which can affect the fortunes of their own export industries. As in the past, however, they pay closest attention to the policies that have the most direct effects on trade flows and exchange rates. For this reason, changes in tariffs and other trade restrictions are regulated by a formal code of conduct administered by the World Trade Organization (WTO), and policies affecting exchange rates are subject to looser but regular review by the International Monetary Fund (IMF) and other international organizations.

Policy interdependence has an extra dimension in the case of the United States. Although it does not dominate the world economy as it did in the decades following World War II, it is still the largest national economy, and the U.S. dollar is still the world's most important currency. American monetary and fiscal policies have worldwide effects through their influence on economic activity in the United States and thus the American demand for imports, through their influence on world prices, and through their influence on interest rates, capital flows, and exchange rates. The tightening of U.S. monetary policy that brought on the deep recession of 1981–82 helped to trigger the international debt crisis that began in 1982. By raising world interest rates, it raised the debtor countries' interest payments; by

[1] The number for the EU excludes trade within the EU but includes four countries that did not join the monetary union in 1999 (Denmark, Greece, Sweden, and the United Kingdom).

reducing the debtors' exports, it reduced their ability to make those payments. American trade, agricultural, and energy policies are no less important for the health of the world economy. As a consequence, the policies of the United States are subject to close scrutiny and frequent criticism by other governments.

The criticism is not always justified. It is sometimes used to cloak the deficiencies of other countries' policies and often reflects dissatisfaction with the state of the world, not with U.S. policy. It can be exasperating. Some years ago, the United States was accused of following a lax monetary policy and "exporting" inflation to the rest of the world. The charge had some validity. But when the United States tightened its monetary policy to combat inflation, it was accused of raising world interest rates and depressing economic activity in other countries. One European economist, sympathetic to the plight of U.S. officials obliged to respond to incessant criticism, put the matter nicely. According to the critics, he said, "the American economy is unsafe at any speed."

Nevertheless, the United States must pay attention to its large role in the world economy and to other countries' concerns. Controversies about economic policies migrate quickly into the political domain, affecting the quality of cooperation in diplomatic and strategic matters. Governments dissatisfied with U.S. economic policies soon start to express dissatisfaction with U.S. political leadership. The importance of economic issues is underscored by a practice adopted several years ago. The leaders of the seven main industrial countries, listed in Table 1-1, attend an annual economic summit to review economic problems and policies. (The countries are known as the Group of Seven, or simply the G-7.)

SOVEREIGNTY AND TRADE

Economists are fond of abstract formulations. We build elaborate models, with *n* countries, *m* goods, and so on. But the questions we study and examples we use are often inspired by practical concerns. In a famous demonstration of the gains from trade, David Ricardo dealt with two countries, England and Portugal, trading two goods, cloth and wine. He chose this example because it would be meaningful to his British audience. It evoked the oldest international agreement to reduce trade barriers, the Methuen Treaty of 1703, which cut British tariffs on Portuguese wines and gave British textiles free entry into Portugal.

The Mercantilist View

Early writers on international trade, the Mercantilists of the seventeenth century, were also concerned with a practical problem—establishing and consolidating royal authority at home and abroad. The crown was challenged at home by the old nobility, whose power derived from its feudal right to raise both revenues and armies from the countryside. The crown was challenged abroad by the rivalry for empire in the New World. To establish royal authority at home, the crown had to raise and pay armies. To compete for empire abroad, it had to build ships. Its power, then, depended on its ability to cultivate new sources of revenue—to foster and tax domestic and foreign commerce.

The most famous French Mercantilist, Jean Baptiste Colbert, minister to Louis XIV, dismantled internal trade barriers and subsidized new industries. In one decree, he offered bounties to companies that brought Flemish weavers to France and trained new craftsmen. It was also necessary, however, to acquire an adequate supply of money—gold and silver in

those days. Money was needed to carry out trade and pay the taxes on that trade. The crown had also to accumulate money to pay for its armies and navies. Critics of the Mercantilists, including Adam Smith, accused them of confusing gold and silver with national wealth. Some of them did, but others were quite clear about their policy objective. They stressed the gathering of gold and silver because they identified the nation with the crown and therefore identified the wealth of the nation with the gold and silver the crown could accumulate—with the means of payment for military power.

Spain extracted gold and silver from the Aztecs and Incas. Britain, France, and other countries had then to extract them from Spain through their foreign trade. For the Mercantilists, gold and silver were the gains from trade, to be earned by encouraging exports and discouraging imports. These are the words of Thomas Mun, a British merchant, published in 1664:[2]

> The ordinary means . . . to increase our wealth and treasure is by *Forraign Trade*, wherein wee must ever observe this rule; to sell more to strangers yearly than wee consume of theirs in value. For suppose that when this Kingdom is plentifully served with the Cloth, Lead, Tinn, Iron, Fish and other native commodities, we doe yearly export the overplus to forraign Countries to the value of twenty two hundred thousand pounds; by which means were are enabled beyond the Seas to buy and bring in forraign wares for our use and Consumptions, to the value of twenty hundred thousand pounds; By this order duly kept in our trading, we may rest assured that the Kingdom shall be enriched yearly two hundred thousand pounds, which must be brought to us in so much Treasure; because that part of our stock which is not returned to us in wares must necessarily be brought home in treasure.

One can find many flaws in Mercantilist logic, and the main one was identified by David Hume. A country that increases its money supply by exporting more than it imports will find that its prices start to rise. This will undermine its competitive position in world markets. Its exports will fall, its imports will rise, and it will have to export money. It was, indeed, the main aim of the Classical economists, including David Hume and Adam Smith, to prove that the crown and its ministers cannot defy the "natural laws" that govern social processes—that intervention by the state is self-defeating in the long run and may reduce national prosperity.

The Classical View

The Mercantilists of the seventeenth century believed in a world of conflict, the world of Thomas Hobbes in which the state of nature was a state of war. They took for granted the need for regulation to maintain order in human affairs, including economic affairs. The Classical economists of the eighteenth century believed in a world of harmony, the world of John Locke in which the state of nature was a state of peace, and they rejected regulation. When Hume explained that prices and trade flows would regulate the quantity of money automatically, and Smith explained that an "invisible hand" would cause competition in the marketplace to serve society at large, both were expressing their belief in a benign natural order.

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[2] Thomas Mun, *Englands Treasure by Forraign Trade*, 1664, ch. ii.

Most important for our purpose, the Classical economists rejected the Mercantilists definition of national prosperity. They were concerned with the welfare of the crown's subjects, not of the crown itself. Therefore, they measured the gains from trade in different terms. Exports were the means of acquiring imports, not gold and silver, and thus using the nation's resources efficiently. Restrictions on imports were illogical. In 1776, slightly more than a century after Thomas Mun, Adam Smith wrote:[3]

> To give the monopoly of the home-market to the produce of domestic industry, in any particular art or manufacture, is in some measure to direct private people in what manner they ought to employ their capitals, and must, in almost all cases, be either a useless or a hurtful regulation. . . . It is the maxim of every prudent master of a family, never to attempt to make at home what it will cost him more to make than to buy. The taylor does not attempt to make his own shoes, but buys them of the shoemaker. The shoemaker does not attempt to make his own clothes, but employs a taylor. . . .
>
> What is prudence in the conduct of every private family, can scarce be folly in that of a great kingdom. If a foreign country can supply us with a commodity cheaper than we ourselves can make it, better buy it of them with some part of the produce of our own industry, employed in a way in which we have some advantage. The general industry of the country, being always in proportion to the capital which employs it, will not thereby be diminished, no more than that of the above-mentioned artificers; but only left to find out the way in which it can be employed to the greatest advantage. It is not employed to the greatest advantage when it is thus directed toward an object which it can buy cheaper than it can make.

Smith's reasoning is not rigorous. What is "prudence" for a family *can* be "folly" for a kingdom. Furthermore, "advantage" must be defined very carefully. That task was left to David Ricardo. Nevertheless, Smith's argument illustrates effectively the approach adopted by the Classical economists.

As Smith and his successors believed that the role of government should be sharply limited, they paid little attention to the ways in which national sovereignty affects foreign trade and causes it to differ intrinsically from domestic trade. When we come to Ricardo's demonstration of the gains from trade, we will see that the countries in his example could be towns or regions instead of sovereign states. They are places endowed with labor and capital, which can move freely between economic activities but not from place to place. In Classical trade theory and much modern theory, too, international trade is differentiated from domestic trade by the international mobility of goods and the *im*mobility of labor and capital.

We will use this same device to simplify the presentation of trade theory but should not let it mislead us. At times, especially in the nineteenth century, international movements of labor have dwarfed internal movements. Furthermore, distances within a country can greatly exceed distances between them, affecting the costs of moving goods and people. New York is farther from California than France is from Germany. In any case, trade theory is not interested primarily in flows of goods from place to place; it is interested in flows from country to country. Countries are distinguished from places or regions by the forms

[3] Adam Smith, *The Wealth of Nations*, 1776, bk. iv, ch. ii.

and functions of their governments. The study of international economics must take as its starting point the existence and variety of sovereign states.

How Governments Affect International Transactions

Trade and other international transactions are treated differently than domestic transactions. Governments use taxes, subsidies, and direct controls to discriminate between residents and foreigners, even when they undertake identical activities. But there are many other ways in which the exercise of national sovereignty can affect international trade. All governments supply *public goods*, including the legal and monetary systems that furnish the framework for economic activity. They may not discriminate deliberately between domestic and foreign transactions when they perform these basic tasks. Each government, however, performs them differently, which means that transactions between countries are affected differentially.

The activities of governments have three sorts of effects on international transactions. First, they produce differences in the ways that residents of a single country perceive and respond to domestic and foreign opportunities. Second, they produce differences in the ways that residents of different countries perceive and respond to identical opportunities. Third, they add to the risks and costs of all transactions, but add more to those of foreign than domestic transactions, because a change in one country's national policies affects that country's residents without necessarily affecting other countries' residents.

Laws and customs are fairly uniform within individual countries. It is therefore quite easy to move goods, labor, and capital from place to place. The tax system is also homogeneous within a country, but tax systems differ markedly from country to country. True, the tax laws of the 50 U.S. states differ importantly. But the federal tax system tends to neutralize differences among the states' tax systems, because state income taxes are deductible from income subject to federal tax. Furthermore, federal grants and spending tend to reduce local differences in the quantity and quality of public services that might otherwise influence decisions about the location of economic activity.

Internal monetary differences are smallest of all. Nationwide markets connect financial institutions within the United States. Funds flow freely from region to region, and firms can borrow wherever it is cheapest, whittling down regional differences in credit conditions. Finally, and most important, a single currency is used throughout the country. A five-dollar bill issued by the Federal Reserve Bank of Richmond circulates freely in the United States; it must be accepted everywhere. How much more complicated life would be if merchants did not accept the currency of another Federal Reserve district! You would have to look at every dollar bill, weed out those from other districts, and take them to a bank to swap them for local currency. You would have to trade one kind of dollar for another whenever you crossed state lines.

Goods flow freely within the United States. In fact, the U.S. Constitution expressly forbids local interference with interstate commerce. The authors of the Constitution believed that free trade among the states would help to cement a fragile political union. The countries of Western Europe created a common market for similar reasons—as a first step toward political confederation. They let goods move freely within Western Europe and impose a common tariff on goods from outside. But international trade is usually burdened by tariffs, and it is often limited by other devices—quotas that restrict quantities imported and controls on purchases of foreign currencies.

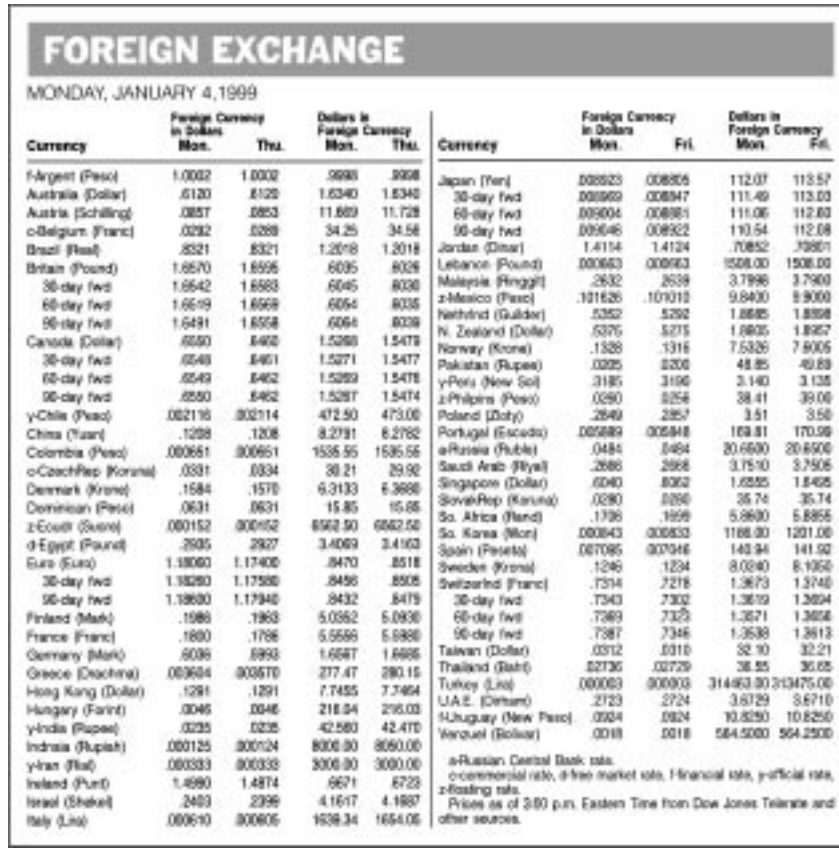
Wrist watches, battery powered, whether or not incorporating a stop watch facility:	
With mechanical display only:	
Having no jewels or only one jewel in the movement	51¢ each + 6.25% on the case and strap or or band or bracelet + 5.3% on the battery
Other	87¢ each + 6.25% on the case... + 5.3% on the battery
With opto-electronic display only:	
.....	
.....	
Other wrist watches, whether or not incorporating a stop watch facility:	
With automatic winding:	
Having over 17 jewels in the movement	$2.30 each + 6.25% on the case and strap, band or bracelet
Other:	
Having no jewels or only one jewel in the movement	51¢ each + 6.25% on the case...
Having over 1 jewel but not over 7 jewels in the movement	87¢ each + 6.25% on the case...
Having over 7 jewels but not over 17 jewels in the movement:	
With movement valued not over $15 each:	
With movement measuring not over 15.2 mm	$2.85 each + 6.25% on the case...
With movement measuring over 15.2 mm	$2.40 each + 6.25% on the case...
With movement valued over $15 each...	$1.27 each + 6.25% on the case...
Having over 17 jewels in the movement	$2.30 each + 6.25% on the case...

FIGURE 1-1
A Fragment of the U.S. Tariff Schedule

These trade barriers are doubly restrictive. First, they raise the domestic prices of foreign goods, which handicaps those goods in competition with domestic goods. Second, they impose a costly workload on a would-be importer. Figure 1-1 reproduces a fragment of the U.S. tariff schedule. Use it to find the duty on a watch without a battery or self-winding mechanism, having 15 jewels and a $12 movement measuring less than 15 millimeters.

International transactions usually involve two or more currencies. An American wholesaler importing French champagne must first determine its price in euros, then the price of the euro in terms of the dollar, to calculate the price that must be charged in the United States. After ordering the champagne, the wholesaler must buy euros with dollars and pay them to the French supplier. There are thus extra costs and risks involved in the transaction. The costs are the commissions charged by the dealers in foreign currencies. The risks arise because exchange rates can change.

Under current international monetary arrangements, exchange rates for most major currencies float. They move up and down from day to day, responding to changes in supply and demand, and the fluctuations can be very large. In December 1984, the U.S. dollar bought 9.59 French francs, but two years later, it bought only 6.45 francs. In June 1991, the dollar bought 6.14 francs; one year later, it bought only 5.13 francs; and in January 1999, it bought 5.55 francs (see Figure 1-2). Similar risks existed, however, when exchange



FOREIGN EXCHANGE

MONDAY, JANUARY 4,1999

Currency	Foreign Currency in Dollars Mon.	Thu.	Dollars in Foreign Currency Mon.	Thu.
f-Argent (Peso)	1.0002	1.0002	.9998	.9998
Australia (Dollar)	.6120	.6120	1.6340	1.6340
Austria (Schilling)	.0857	.0853	11.669	11.728
o-Belgium (Franc)	.0292	.0288	34.25	34.56
Brazil (Real)	.8321	.8321	1.2018	1.2018
Britain (Pound)	1.6570	1.6595	.6035	.6026
30-day fwd	1.6542	1.6583	.6045	.6030
60-day fwd	1.6519	1.6569	.6054	.6035
90-day fwd	1.6491	1.6558	.6064	.6039
Canada (Dollar)	.6550	.6462	1.5268	1.5473
30-day fwd	.6548	.6461	1.5271	1.5477
60-day fwd	.6549	.6462	1.5269	1.5476
90-day fwd	.6550	.6462	1.5267	1.5474
y-Chile (Peso)	.002116	.002114	472.50	473.00
China (Yuan)	.1208	.1208	8.2781	8.2782
Colombia (Peso)	.000651	.000651	1535.55	1535.55
o-CzechRep (Koruna)	.0331	.0334	30.21	29.92
Denmark (Krone)	.1584	.1570	6.3133	6.3686
Dominican (Peso)	.0631	.0631	15.85	15.85
z-Ecuad (Sucre)	.000152	.000152	6562.50	6562.50
d-Egypt (Pound)	.2935	.2927	3.4069	3.4163
Euro (Euro)	1.18060	1.17400	.8470	.8518
30-day fwd	1.18250	1.17588	.8456	.8505
90-day fwd	1.18600	1.17940	.8432	.8479
Finland (Mark)	.1986	.1963	5.0362	5.0930
France (Franc)	.1800	.1786	5.5556	5.5980
Germany (Mark)	.6036	.5993	1.6567	1.6686
Greece (Drachma)	.003604	.003570	277.47	280.15
Hong Kong (Dollar)	.1291	.1291	7.7455	7.7464
Hungary (Forint)	.0046	.0046	218.04	216.03
y-India (Rupee)	.0235	.0235	42.560	42.470
Indnsia (Rupiah)	.000125	.000124	8000.00	8060.00
y-Iran (Rial)	.000333	.000333	3000.00	3000.00
Ireland (Punt)	1.4690	1.4874	.6671	.6723
Israel (Shekel)	.2403	.2399	4.1617	4.1687
Italy (Lira)	.000610	.000605	1639.34	1654.05

Currency	Foreign Currency in Dollars Mon.	Fri.	Dollars in Foreign Currency Mon.	Fri.
Japan (Yen)	.008923	.008806	112.07	113.57
30-day fwd	.008969	.008847	111.49	113.03
60-day fwd	.009004	.008881	111.06	112.60
90-day fwd	.009046	.008922	110.54	112.08
Jordan (Dinar)	1.4114	1.4124	.70852	.70801
Lebanon (Pound)	.000663	.000663	1508.00	1508.00
Malaysia (Ringgit)	.2632	.2639	3.7998	3.7900
z-Mexico (Peso)	.101626	.101010	9.8400	9.9000
Nethrlnd (Guilder)	.5252	.5292	1.8685	1.8898
N. Zealand (Dollar)	.5375	.5275	1.8605	1.8957
Norway (Krone)	.1328	.1316	7.5326	7.6005
Pakistan (Rupee)	.0205	.0200	48.85	49.89
y-Peru (New Sol)	.3185	.3190	3.140	3.135
z-Philpins (Peso)	.0260	.0256	38.41	39.06
Poland (Zloty)	.2849	.2857	3.51	3.50
Portugal (Escudo)	.005889	.005848	169.81	170.99
a-Russia (Ruble)	.0484	.0484	20.6500	20.6500
Saudi Arab (Riyal)	.2666	.2666	3.7510	3.7506
Singapore (Dollar)	.6040	.6062	1.6555	1.6495
SlovakRep (Koruna)	.0280	.0280	35.74	35.74
So. Africa (Rand)	.1706	.1699	5.8600	5.8855
So. Korea (Won)	.000843	.000833	1186.00	1201.00
Spain (Peseta)	.007095	.007046	140.94	141.92
Sweden (Krona)	.1246	.1234	8.0240	8.1050
Switzerlnd (Franc)	.7314	.7278	1.3673	1.3740
30-day fwd	.7343	.7302	1.3619	1.3694
60-day fwd	.7369	.7325	1.3571	1.3656
90-day fwd	.7387	.7346	1.3538	1.3613
Taiwan (Dollar)	.0312	.0310	32.10	32.21
Thailand (Baht)	.02736	.02729	36.55	36.65
Turkey (Lira)	.000003	.000003	314953.00	313475.00
U.A.E. (Dirham)	.2723	.2724	3.6729	3.6710
f-Uruguay (New Peso)	.0924	.0924	10.8250	10.8250
Venzuel (Bolivar)	.0018	.0018	564.5000	564.2500

a-Russian Central Bank rate.
c-commercial rate, d-free market rate, f-financial rate, y-official rate, z-floating rate.
Prices as of 3:00 p.m. Eastern Time from Dow Jones Telerate and other sources.

FIGURE 1-2
Exchange Rates
The prices of currencies are quoted in dollars per unit of foreign currency and in units of foreign currency per dollar. On January 4, 1999, the Japanese yen was quoted at $0.008923 per yen (i.e., at 0.8923 cents). It was therefore quoted at 112.07 yen per U.S. dollar. For most currencies, rates are quoted for spot (immediate) delivery. For some important currencies, like the yen, rates are also quoted for forward (future) delivery in 30, 60, or 90 days. Copyright ©1999 by The New York Times Company; reprinted by permission.

rates were pegged, as was the case for most currencies before 1973. Rates did not fluctuate significantly from day to day, but they could be altered abruptly and by large amounts. In 1957, the French government devalued the franc from 4.20 to 4.90 per dollar; in 1969, there was another devaluation, to 5.55 per dollar.[4] Each change took place suddenly.

[4] As indicated earlier, exchange rates can be quoted in another way. One can deal with the dollar price of the French franc. Using this approach, the franc fell from 23.8 cents to 20.4 cents in 1957 and to 18.0 cents in 1969. These computations make it easy to see why the changes are described as devaluations; they reduced the dollar value of the franc. Hereafter, exchange rates will be defined as the prices of foreign currency in units of domestic currency. From the French standpoint, then, the franc–dollar rate in Figure 1-2 was 5.55 francs per dollar on January 4, 1999; from the American standpoint, it was 18 cents per franc. (The exchange-rate table shown as Figure 1-2 pertains to the first day of currency trading after the euro became the single currency of the European monetary union. It still shows quotations for the Deutsche mark, French franc, and currencies of other euro-area countries because it was decided that the euro would not replace them completely until 2002.)

Changes in exchange rates can cut into traders' profits, and large changes can turn profits into losses. An American wholesaler importing French champagne could lose heavily if the price of the euro rose on the foreign-exchange market after the firm had signed its contract with its French supplier but before it had purchased its euros.

PERSPECTIVES AND CRITERIA

International economists view the world as a community of separate states, each with its own constellation of natural resources, capital, labor, and knowledge, its own social and economic institutions, and its own economic policies. We usually assume that transport costs are negligible and that world markets are perfectly competitive, although recent theoretical work has studied other market structures, and we will do that too. We frequently adopt the Classical assumption that capital and labor are perfectly mobile within a country but not free to move from country to country.

Using these assumptions, we seek to explain international flows of goods, services, and assets; appraise their impact on domestic economic welfare; and forecast their responses to policy changes. We concentrate on policies designed expressly to regulate trade and payments—those involving tariffs, exchange rates, and the tax treatment of foreign-source income. But we also look at general economic policies, especially at fiscal and monetary policies, and at labor laws and environmental standards, because they define the economic context in which international transactions take place.

We have two ways of viewing policies and can use a number of criteria to judge them.

Two Perspectives

When appraising policies and other events that influence trade and payments, we sometimes adopt a *national* perspective, asking how those policies and other events affect a single country. For many purposes, however, we find it useful to adopt a *cosmopolitan* perspective, asking how policies and other events affect all countries jointly.

When taking the national perspective, we often begin by pretending that a country has been isolated from the outside world, then starts to trade with other countries. When taking the cosmopolitan perspective, we sometimes begin by pretending that there are no differences in economic policies and no barriers to trade between regions; we then turn those regions into nations, each with its own policies and institutions, to see how trade and payments change. We will find, for example, that free trade is the best regime from the cosmopolitan perspective but not necessarily from the national perspective. A large country can sometimes increase its gains from trade by imposing certain tariffs. In the process, however, it reduces the global gains from trade. Conflicts of this sort arise frequently between cosmopolitan and national objectives.

Many rules and arrangements have been adopted by the international community to prevent individual governments from pursuing national objectives at the expense of cosmopolitan objectives. The General Agreement on Tariffs and Trade (GATT) was adopted to prevent them from using tariffs to increase their gains from trade or for other narrowly national purposes. The International Monetary Fund was designed to prevent them from engaging in competitive devaluations or using inappropriate domestic policies to deal with

temporary payments problems. Similar purposes are served by frequent policy consultations in the Organization for Economic Co-operation and Development (OECD) and other international gatherings, including the annual economic summits. These consultations aim at encouraging the governments of major industrial countries to adopt *cooperative* solutions to their problems, especially in macroeconomic matters. Such solutions are frequently superior to those resulting from decentralized national decisions but are not always seen that way by individual governments. Cooperative approaches are also required to deal with a number of global problems that cannot be handled effectively by individual governments. Some of them are global problems, such as oceanic and atmospheric pollution. Others have become global in scope because they pertain to the activities of large transnational actors, such as multinational firms and banks, and lie beyond the reach of any single government.

Transnational actors have many effects on the functioning of the international economy and on relations among national governments. They tend to enhance the efficiency of the world economy and to reduce cross-country differences in national policies. Nevertheless, their activities pose major challenges, producing disputes between governments but also encouraging them to devise common rules or standards, most notably in matters relating to the supervision of international financial institutions. Critics of international cooperation frequently charge that it threatens national sovereignty. That misses the point. The case for cooperation starts when sovereignty has already been impaired by economic interdependence and governments acting individually can no longer perform their functions effectively.

International cooperation is cumbersome and costly. It should not be undertaken unless it is necessary. National governments can still perform many tasks effectively. But the globalization of economic activity has strengthened the case for collective action in many domains that used to belong to national governments.

Four Criteria

Although international economists treat nation states as actors on the global stage, we are concerned primarily with individuals. We therefore appraise economic policies by the same criteria used elsewhere in economics. We treat a policy change as being good potentially if the individuals who benefit from it can compensate the individuals who lose.[5] Furthermore, we use the same tests of economic performance that guide all economists.

First, we are concerned with efficiency: How do international trade and payments affect the allocation of resources within a single country? How do they redistribute economic tasks among the participating countries?

[5] We do not agree among ourselves, however, on the need to carry out this compensation. Some of us believe that we have done our work once we have shown that compensation is feasible—that the gains of those who come out ahead are large enough to offset the losses of those who fall behind. Others believe that compensation must actually be paid before we can endorse a policy change. Some take an intermediate position, saying that compensation should be paid if the losers have smaller incomes than the gainers, a view that embodies a moral judgment about inequality. These issues will crop up again in Chapter 9.

Second, we are concerned with equity: How does trade redistribute income and wealth within a country? How does it redistribute them across countries?

Third, we are concerned with stability: How do trade and payments affect an economy's responses to disturbances, its vulnerability to unemployment and inflation, and the efficacy of the monetary and fiscal policies used to achieve stability?

Fourth, we are concerned with growth: How does trade affect a country's growth rate? How does its growth affect its trade? Should developing countries gear their economies to international markets or should they protect their infant industries from international competition?

Efficiency, equity, and growth will be the main issues in Part Two of this book, where standard tools of microeconomic analysis are used to show how trade affects domestic resource allocation and the distribution of the national income. Stability will be the chief concern in Part Three, where standard tools of macroeconomic analysis are used to show how trade and other international transactions affect the levels of economic activity, unemployment, and inflation, and the conduct of monetary and fiscal policies.

SUMMARY

The earliest writers on international economics, the Mercantilists of the seventeenth century, measured the gains from trade by the "treasure" that a country could accumulate through trade. They urged the state to maximize these gains by encouraging exports and discouraging imports. The Classical economists of the eighteenth century took a different view. They measured the gains from trade by the increase in efficiency that could be achieved by concentrating on the activities in which an economy had a competitive advantage. They urged the state to abstain completely from regulating foreign trade.

Modern economists measure the gains from trade in much the same way as the Classical economists, but they pay more attention to the role of government. Trade and other international transactions are influenced by many economic policies, including those adopted for domestic reasons. Conversely, international transactions impinge on the conduct of domestic policies. The exchange-rate regime can influence heavily the effectiveness of monetary policy. Furthermore, the tasks of domestic policies are complicated by international disturbances—by changes in incomes, prices, and interest rates in other countries.

The problems of economic interdependence have long been familiar to policy makers in most countries; their national economies are very open compared to the U.S. economy. But the problems are becoming familiar to Americans, too. The American economy has become more open. Furthermore, U.S. economic policies affect the health of the world economy, and controversies about economic policies tend to migrate into the political arena, affecting international cooperation in diplomatic and strategic matters.

RECOMMENDED READINGS

Many topics covered briefly in this chapter will be studied thoroughly in later chapters, and longer lists of readings are appended to those chapters. Here are three references that do not fit in elsewhere:

On the contributions of the Mercantilists and Classical economists, see Joseph Schumpeter, *History of Economic Analysis* (New York: Oxford University Press, 1954), pt. II, chs. 3, 7.

The opening of the U.S. economy and its implications are examined in Richard N. Cooper, "The United States as an Open Economy," in R. W. Hafer, ed., *How Open Is the U.S. Economy*? (Lexington, Mass.: Lexington Books, 1986), ch. 1.

On trends in openness and related issues, see Sven Grassman, "Long-Term Trends in Openness of National Economies," *Oxford Economic Papers*, 32 (March 1980).